ORDINANCE NO. 0-2007-23

BE IT ENACTED BY THE QUORUM COURT OF THE COUNTY OF BENTON, STATE OF ARKANSAS, AN ORDINANCE TO BE ENTITLED:

AN ORDINANCE AMENDING CERTAIN SECTIONS OF CHAPTER 38 (FLOODS) OF THE *CODE OF ORDINANCES OF BENTON COUNTY*, *ARKANSAS* TO UPDATE THE FLOOD DAMAGE PREVENTION PROGRAM FOR BENTON COUNTY; AND DECLARING AN EMERGENCY

WHEREAS, sections of Chapter 38 (Floods) of the *Code of Ordinances of Benton County, Arkansas* were previously amended by Ordinance No. O-2007-22; and

WHEREAS, additional technical amendments to Chapter 38 (Floods) of the *Code* of Ordinances of Benton County, Arkansas have been determined to be necessary by the Federal Emergency Management Agency; and

WHEREAS, said amendments are necessary to insure Benton County's continued participation in the National Flood Insurance Program.

NOW THEREFORE, BE IT ENACTED BY THE QUORUM COURT OF THE COUNTY OF BENTON, STATE OF ARKANSAS:

<u>ARTICLE 1.</u> That **Section 38-26, Definitions,** of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:

"The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

44 CFR (Emergency Management and Assistance – National Flood Insurance Program Regulations) means Parts 59-75 contain Federal regulations upon which local floodplain managements are based.

44 CFR § 65.12 means the section of the Federal regulations which involves revision of flood insurance rate maps to reflect base flood elevations caused by proposed encroachments.

100-year flood means any flood with a 1% chance of occurring in any given year. The term is misleading, because of its statistical derivation. A "100-year flood" may occur many times in any given 100-year period, or it may not occur at all in 100 years.

A Zones are special flood hazard areas without detailed studies, where base flood elevations have not been determined.

Accessory Structures are structures which are on the same parcel of property as the principle structure and the use of which is incidental to the use of the principle structure (such as garages and storage sheds).

AE Zones are special flood hazard areas where detailed studies have determined base flood elevations.

AH Zones are special flood hazard areas characterized by shallow flooding with ponding effects (where floodwaters accumulate in depressions and linger until absorbed or evaporated).

AO Zones are special flood hazard areas characterized by shallow flooding with sheet flow (where floodwaters flow in a broad, shallow sheet rather than through a narrow channel).

Area of shallow flooding means a designated AO or AH zone on the county's flood insurance rate map (FIRM) with a one percent chance or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, and where the path of flooding is unpredictable. Such flooding is characterized by ponding and sheet flow.

Area of special flood hazard means the land in a floodplain within the county subject to a one percent or greater chance of flooding in any given year. The area may be designated as zone A on the flood insurance rate map (FIRM). After detailed studies have been completed, zone A usually is refined into zones AE, AH, or AO.

Automatic entry and exit of floodwaters means that the water must be able to enter and exit with no intervening action from a person.

Base flood means the flood having a one percent chance of being equaled or exceeded in any given year. (100-year flood)

Base flood elevation refers to the expected height of floodwaters during the peak of the base flood event.

Basement means an area of the building having its floor sub grade (below ground level) on all sides.

BFE is the acronym for Base Flood Elevation.

Buoyancy is the upward force exerted by water. Buoyancy can cause underground tanks to float free and can lift structures off foundations.

CFR is the acronym for the Code of Federal Regulations. The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. The Federal regulations pertaining to the national Flood Insurance Program are found in title 44, Emergency Management and Assistance.

Crawlspace is a type of structural foundation where the space beneath the lowest floor is typically not deep enough to allow a person to stand and not all four walls are below grade.

Critical Facilities include: Governmental facilities that are considered essential for the delivery of critical services and crisis management (such as data and communication centers and key governmental complexes); facilities that are essential for the health and welfare of the whole population (such as hospitals, prisons, police and fire stations, emergency operations centers, evacuation shelters and schools); mass transportation facilities (such as airports, bus terminals, train terminals); lifeline utility systems (including potable water, wastewater, oil, natural gas, electric power and communications systems); high potential loss facilities (such as nuclear power plants or military installations); hazardous material facilities (such as industrial facilities housing

or manufacturing or disposing of corrosives, explosives, flammable materials, radioactive materials and toxins.

D Zones areas in which the flood hazard has not been determined, but may be possible.

Development broadly means any manmade change in improved or unimproved real estate. It includes, but is not limited to, construction, reconstruction, or placement of a building, or any addition or substantial improvement to a building. "Development" also includes the installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 consecutive days. The installation of utilities, construction of roads, bridges, culverts or similar projects are also "developments." Construction or erection of levees, dams, walls, or fences; drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface are "developments." Storage of materials including the placement of gas and liquid storage tanks are "developments," as are channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters. "Development" does not include maintenance of existing buildings and facilities, maintenance of existing drainage ditches, resurfacing of roads, gardening, plowing, routine farming, or similar practices that do not involve filling, grading, or construction of levees.

Development Permit refers to the permit required for placing a "development" in the floodplain.

Elevated building means a non-basement building:

- (1) Built, in zones AE, A, AO, AH, X and D, to have the top of the bottom floor elevated above the ground level by means of pilings, columns (posts and piers) or shear walls parallel to the flow of the water; and
- (2) Adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of one foot above the base flood.

For zones AE, A, AO, AH, X and D, elevated building also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.

Elevation Certificate refers to FEMA form 81-31, which for the purposes of this article must be properly completed by a Professional Engineer, Surveyor or Architect licensed to practice in the State of Arkansas.

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including, at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads, is completed before the effective date of the floodplain management regulations adopted by the county.

Existing Structure means, for floodplain management purposes, a structure which is in place before any reconstruction, rehabilitation, addition, or other improvement takes place.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads.

Federal Emergency Management Agency, or FEMA, is the Federal agency responsible for administering the National Flood Insurance Program.

FEMA is the acronym for the Federal Emergency Management Agency.

Fill refers to the placement of natural sand, dirt, soil, rock, concrete, cement, brick, or similar material at a specified location to bring the ground surface up to a desired elevation.

FIRM is the acronym for Flood Insurance Rate Map.

Flood Fringe refers to the portion of the 100-year floodplain which is outside the floodway.

Flood insurance rate map (FIRM) means an official map of the county, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the county.

Flood insurance study means the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation of the base flood, as well as the flood boundary-floodway map.

Flooding events are general or temporary conditions of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters, or from the unusual and rapid accumulation or runoff of surface waters from any source.

Floodplain refers to any land area susceptible to inundation by floodwaters from any source. For the purposes of this article, floodplain refers to the land area susceptible to being inundated by the base flood.

Floodplain Administrator refers to the county official designated in this article as responsible for the administration of floodplain management regulations.

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

Floodplain management regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, such as a floodplain ordinance, grading ordinance and erosion control ordinance, and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Flood proofing means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Flood proofing Certificate refers to FEMA form 81-65, which for the purposes of this article must be properly completed by a Professional Engineer or Architect licensed to practice in the State of Arkansas.

Floodway (regulatory floodway) means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Flow-through openings are openings specifically designed to allow floodwaters to flow into and out of enclosed spaces, minimizing the danger of foundation or wall collapse from lateral hydrostatic pressure.

Functionally dependent use means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers and shipbuilding and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

- (1) Listed individually in the National Register of Historic Places, a listing maintained by the Department of the Interior, or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - a. By an approved state program as determined by the Secretary of the Interior; or
 - b. Directly by the Secretary of the Interior in states without approved programs.

Hydrodynamic forces are the forces and stresses associated with moving water, including impacts from objects carried in the water.

Hydrostatic flood forces are the forces and stresses associated with standing floodwaters.

Lateral forces are the horizontal hydrostatic forces associated with standing water. Water exerts an equal force in all directions, and as little as three feet of standing water can generate sufficient lateral force to collapse a foundation or wall.

Levee means a manmade structure, usually earthen embankments designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Lowest floor refers to the lowest floor of the lowest enclosed area (including basement). For a typical slab-on-grade construction, the elevation of the lowest floor is the top of the first floor of the house. For a typical basement foundation construction, the elevation of the lowest floor is the top of the basement floor. For a typical crawlspace foundation construction, the elevation of the lowest floor is the top of the house. For typical split-level constructions, the elevation of the lowest floor is the top of the first living area floor – the garage floor is not the lowest floor as long as there are no living areas in the garage and it is used solely for storage, parking vehicles and entry to

the house. The elevation of the lowest floor of a manufactured home, however, is the bottom surface of the lowest floor joist.

Manufactured home means a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a recreational vehicle.

Manufactured Home Park or subdivision means a parcel or contiguous parcels of land divided into two or more manufactured home lots for rent or sale.

Mean sea level means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum to which base flood elevations shown on the county's flood insurance rate map are referenced.

Mixed Use Structures are structures with both a business and a residential component, but where the area used for business is less than 50% of the total floor area of the structure.

New construction means, for floodplain management purposes, structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by the county on September 12, 1991, and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including at a minimum the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads, is completed on or after the effective date of floodplain management regulations adopted by the county.

No Adverse Impact principle is a principle of restricting or prohibiting land development that does harm or "adversely affects" someone else's property or land.

Nonresidential Structures are structures used only for commercial or public purposes, such as businesses, schools, churches, etc.

No-Rise Certificates are formal certifications signed and stamped by a Professional Engineer licensed to practice in the State of Arkansas, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that a proposed development will not result in any increase in flood levels within the community during the occurrence of a base flood event.

Recreational vehicle means a vehicle which is:

- (1) Built on a single chassis;
- (2) Four hundred square feet or less when measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Section 404 Wetlands Permit is a permit required under Section 404 of the Clean Water Act for the discharge of dredged and fill material into any surface water of the United States. The US Army Corps of Engineers issues Section 404 permits.

SFHA is the acronym for Special Flood Hazard Area.

Slab anchors are anchors where the hook of the anchor is wrapped around a horizontal rebar in the slab before the concrete is poured.

Special flood hazard areas are geographical areas identified on FEMA flood insurance rate maps as being at-risk for flooding. The maps further categorize these areas into various flood risk zones A, AE, AH, and AO. See area of special flood hazard.

Start of construction, includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, nor does it include the installation of streets and/or walkways nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

State Coordinating Agency is the agency that acts as a liaison between FEMA and a community for the purposes of floodplain management. The Arkansas Natural Resources Commission is the State Coordinating Agency for Arkansas.

Structure, for the purposes of floodplain management, refers to any building with two or more rigid walls and a fully secured roof on a permanent site or to any gas or liquid storage tank that is principally above ground.

Substantial damage is damage of any origin where the cost to restore a structure to its original undamaged state would equal or exceed 50% of the market value of the structure before any damage occurred. In determining whether substantial damage has occurred, estimators must use standard contractor and materials costs. There are no exceptions for homeowners who make their own repairs or for discounted or free raw materials.

Substantial improvement means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before start of construction of the improvement. This includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary conditions; or
- (2) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Variance means a grant of relief to a person from the requirements of this article when specific enforcement would result in unnecessary hardship. A variance, therefore,

permits construction or development in a manner otherwise prohibited by this article. (For full requirements see section 60.6 of the National Flood Insurance Program regulations.)

Violation means the failure of a structure or other development to be fully compliant with the county's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, where specified, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

X Zones are a special group of insurance risk zones. One type, shown as non-shaded areas on FEMA issued flood maps, indicates a zone where flooding is not expected to occur. The second type, shown as shaded areas of FEMA flood maps, indicates a flood hazard area that is expected to be affected by the 500-year flood, but not by the 100-year base flood."

ARTICLE 2. That Section 38-30, Basis for establishing areas of special flood hazard, of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:

"The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Benton County, Arkansas and Incorporated Areas" dated September 28, 2007, with accompanying flood insurance rate maps (FIRM),dated September 28, 2007, are adopted by reference and declared to be part of this article."

<u>ARTICLE 3.</u> That **Section 38-32, Compliance,** of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:

"No structure or land shall be located, altered or have its use changed without full compliance with the terms of this article and other applicable regulations."

ARTICLE 4. That Section **38-34**, **Reserved**, of the *Code of Ordinances of Benton County*, *Arkansas* is hereby amended to read as follows:

"Sec. 38-34. Abrogation and greater restrictions.

This article does not repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. Whenever there is a conflict or overlap between this ordinance and another ordinance, easement, covenant, or deed restriction, the instrument with the more stringent restrictions applies."

- ARTICLE 5. That Section 38-52, Permit Procedures, part (a), of the Code of Ordinances of Benton County, Arkansas is hereby amended to read as follows:
- "(a) Application for a development permit under this article shall be presented to the floodplain administrator and may include but not be limited to plans in duplicate drawn to scale showing the location, dimensions and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of such in relation to areas of special flood hazard. Additionally, the following information is required:
- (1) Elevation, in relation to mean sea level, of the lowest floor, including basement, of all new and substantially improved structures.
- (2) Elevation in relation to mean sea level to which any nonresidential structure shall be flood-proofed.
- (3) A certificate from a registered professional engineer or architect that the nonresidential flood-proofed structure shall meet the flood-proofing criteria of section 38-73(2).
- (4) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
 - (5) A record of all such information in accordance with section 38-54(a) (1)."
- ARTICLE 6. That Section 38-52, Permit Procedures, part (b) (7), of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:
- "(7) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site."
- ARTICLE 7. That Section 38-54, Duties and responsibilities of the floodplain administrator, part (a), of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:
- "(a) Duties and responsibilities of the floodplain administrator shall include but are not limited to the following:
- (1) Maintain and hold open for public inspection all records pertaining to this article.
- (2) Review permit applications to determine whether a proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding.
- (3) Review, approve or deny all applications for development permits required by this article.
- (4) Review permits for proposed development to ensure that all necessary permits have been obtained from those federal, state or local governmental agencies (including section 404 of the Federal Water Pollution Control Act amendments of 1972, 33 USC 1334) from which prior approval is required.

- (5) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation.
- (6) Notify, in riverine situations, adjacent communities and the Arkansas Natural Resource Commission prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (7) Ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.
- (8) When base flood elevation data have not been provided in accordance with section 38-30 the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a federal, state or other source, in order to administer sections 38-72--38-76.
- (9) When a regulatory floodway has not been designated, require that no new construction, substantial improvements or other development, including fill, shall be permitted within zones AE on the county's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the county.
- (10) Obtain accreditation each year as required by A.C.A. §14-268-106 through the State Coordinating Agency, which is the Arkansas Natural Resources Commission.
- (11) Evaluate proposed projects for conformance with No Adverse Impact principles."

<u>ARTICLE 8</u>. That **Section 38-72**, **General Standards**, of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:

"In all areas of special flood hazards the following are required for all new construction and substantial improvements:

- (1) All new construction or substantial improvements shall be designed or modified and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- (2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and located to prevent water from entering or accumulating within the components during conditions of flooding;
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

- (6) New and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and
- (7) Onsite waste disposal systems shall be located to avoid impairment to or contamination from them during flooding.
- (8) For the purposes of this article, all mixed-use structures are subject to the more stringent requirements of residential structures.
- (9) A substantial improvement or substantial damage to an existing structure triggers a requirement to bring the entire structure into full compliance with the provisions of this article. The existing structure, as well as any reconstruction, rehabilitation, addition, or other improvement, must meet the standards of new construction in this article.
- (10) Any improvement to an existing structure that is less than a substantial improvement requires the improvement, but not the existing structure, to be in full compliance with the provisions of this article.
- (11) Construction of basement foundations in any Special Flood Hazard Area is prohibited.
- (12) The placement of a manufactured home in the floodway is prohibited."

<u>ARTICLE 9.</u> That **Section 38-73, Specific Standards,** of the *Code of Ordinances of Benton County, Arkansas* is hereby amended to read as follows:

"In all areas of special flood hazards (Zones A and AE), except areas of shallow flooding, (Zones AO and AH) the following are required:

- (1) Residential construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above an elevation one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that the standard of this subsection, as proposed in section 38-52(a) (1), is satisfied.
- (2) Nonresidential construction. New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor; including basement, elevated to or above an elevation one foot above the base flood level or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop or review structural design, specifications and plans for the construction and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification, which includes the specific elevation in relation to mean sea level to which such structures are flood-proofed, shall be maintained by the floodplain administrator.
- (3) *Enclosures*. New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing

for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

- a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottoms of all openings shall be no higher than one foot above grade.
- c. Openings may be equipped with screens, louvers, valves or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

(4) Manufactured homes.

- a. All manufactured homes placed within zone A on a county's FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this subsection, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include but are not limited to use of over-the-top or frame ties to ground anchors. This is in addition to all applicable state and local anchoring requirements for resisting wind forces. Screw augers or expanding anchors will not satisfy the requirement of this provision.
- b. Manufactured homes that are placed or substantially improved within zones AH and AE on the county's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as a result of a flood shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above an elevation one foot above the base flood elevation and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
- c. Manufactured homes placed or substantially improved on sites in an existing manufactured home park or subdivision within zones AH and AE on the county's FIRM that are not subject to this subsection shall be elevated so that either:
 - 1. The lowest floor of the manufactured home is at or above an elevation one foot above the base flood elevation; or
 - 2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
- (5) Recreational vehicles. All recreational vehicles placed on sites within zones AH and AE on the county's FIRM shall either (i) be on the site for fewer than 180 consecutive days, (ii) be fully licensed and ready for highway use, or (iii) meet the permit requirements of section 38-52(a) and the elevation and anchoring requirements for manufactured homes in subsection (4) of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions. (6) In Zone A, the applicant or the applicant's agent must determine a base flood elevation prior to construction. The BFE will be based on a source or method approved by the local floodplain administrator."

ARTICLE 10. That Section 38-74, Standards for subdivision proposals, part (c) of the *Code of Ordinances of Benton County*, *Arkansas* is hereby amended to read as follows:

"(c) Base flood elevation data shall be generated for subdivision proposals, site plan proposals, and other proposed developments, including the placement of manufactured home parks and subdivisions if not otherwise provided pursuant to section 38-30 or 38-54(a) (8) using accepted engineering methods."

ARTICLE 11. Severability. If any court of competent jurisdiction finds that any section, clause, sentence, or phrase of this ordinance is invalid or unconstitutional, that finding in no way affects the validity of the remaining portions of this ordinance.

ARTICLE 12. Emergency Clause. It is hereby found and declared by Benton County that severe flooding has occurred in the past within its jurisdiction and will certainly occur within the future; that flooding is likely to result in infliction of serious personal injury or death, and is likely to result in substantial injury or destruction of property within its jurisdiction; in order to effectively comply with minimum standards for coverage under the National Flood Insurance Program; and in order to effectively remedy the situation described herein, it is necessary that this ordinance become effective immediately. Therefore, an emergency is hereby declared to exist, and this ordinance, being necessary for the immediate preservation of the public peace, health and safety, shall be in full force and effect from and after its passage and approval.

APPROVED: | ARY D. BLACK, COUNTY JUDGE DATE SIGNED: | 10-26-07 | ATTEST: | APPROVED: | AP